Attorney's Docket No.: 07844-357001
Client's Ref. No.: P333

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Applicant : Peter S. MacLeod	Art Unit : 2626
Serial No. : 09/653,053	Examiner : Madeleine AV Nguyen
Filed : September 1, 2000	

Title   : Dynamic Selection of Rendering Intent for Color Proofing Transforms

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

    Attached to this facsimile communication cover sheet is an Interview Summary for Telephone Interview of May 16, 2005, faxed this 20th day of May, 2005, to the United States Patent and Trademark Office.

Date: May 20, 2005

Customer No.: 21876
Fish & Richardson P.C.
500 Arguello Street, Suite 500
Redwood City, California 94063
Telephone: (650) 839-5070
Fax: (650) 839-5071

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Peter S. MacLeod	Art Unit : 2626
Serial No. : 09/653,053	Examiner : Madeleine AV Nguyen
Filed : September 1, 2000	
Title : DYNAMIC SELECTION OF RENDERING INTENT FOR COLOR PROOFING TRANSFORMS	

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INTERVIEW SUMMARY FOR TELEPHONE INTERVIEW OF MAY 16, 2005

The undersigned representative thanks Examiner Nguyen for the courtesy of a telephone interview on May 16, 2005.

The '436 Patent

The applicant and examiner discussed the examiner's reading of the Kumada '436 patent (U.S. Patent No. 6,459,436) and how the examiner applied this reference to claim 1.

The limitation at issue in claim 1 is "automatically selecting a rendering intent based on the color characteristics of the device".

The passage of the '436 patent on which the examiner relies reads in its entirety as follows:

Col. 9

[Selecting Gamut Mapping Mode and Performing Gamut	58
Mapping]	59
A gamut mapping mode is selected by a user through a	60
user interface, or automatically selected by Rendering Intent	61
included in the header of a source profile. The following	62
selection is made in the automatic selection according to the	63

profile.   64
    Perceptual—gamut mapping mode in JCH color space   65
    Relative Colorimetric—gamut mapping mode in JCH   66
       color space   67

Col. 10

Saturation—gamut mapping mode in JCH color space   1
Absolute Colorimetric—gamut mapping mode in QMH   2
       color space   3
In other words, in a case of relative color matching, JCH   4
space 13 is selected, while in a case of absolute color   5
matching, QMH space 14 is selected.   6

The applicant argued that the '436 patent does not teach automatically selecting a rendering intent, as required, for example, by claim 1. The examiner stated that she reads lines 63-64 of column 9 as referring to and indicating the selection of a rendering intent. The applicant argued that this was a gross misreading that did violence to the clear meaning of the text.

More particularly, the applicant point out that the heading of the part of the '436 patent at issue reads "Selecting **Gamut Mapping Mode**", it does **not** read "selecting rendering intent."

The very next sentence begins "A **gamut mapping mode** is selected", it does **not** begin "A rendering intent is selected . . . ."

The gamut mapping mode (when selected automatically), *see* line 61, is selected "by Rendering Intent" – so a rendering intent is the input to, or the basis of, the selection; it is **not** the result of the selection. Then, in the very next sentence (beginning at the end of line 62) the '436 patent states that the "following selection is made in the automatic selection according to the profile." The "following selection" of this sentence is the selection that the examiner insists on reading as the selection of a rendering intent. That reading is insupportable. It ignores the content and import of the paragraph in which the sentence is found. It ignores the heart of the sentence itself, which refers to the selection being made "in the automatic selection" (emphasis added), which unambiguously refers back to the automatic selection mentioned in lines 60-61, which is the automatic selection of gamut mapping mode, and **not** a selection of a rendering intent.

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Notwithstanding all these unambiguous indications of the correct reading of the text, the examiner relied on the last few words on lines 63-64 to support her conclusion, stating that "according to the profile" means selecting a rendering intent according to the profile. To support this idea, the examiner notes that the subsequent four paragraphs (line 61 of column 9 through line 3 of column 10) list the four rendering intents. This is not in dispute. As is well-known to those in the art, the terms perceptual, relative colorimetric, saturation, and absolute colorimetric refer to rendering intents. On that basis, the examiner concludes that these four rendering intents are being selected, when in fact the rendering intents are the basis of the selection, and the gamut mapping mode is what is being selected according to the rendering intent.

In reading "according to the profile" of lines 63-64 the way she does, the examiner affirmatively refused to give any weight to the fact that lines 61-62 state that the gamut mapping mode is "automatically selected by Rendering Intent **included in the header of the source profile.**" (Emphasis added) A rendering intent is included in the header of the source profile, and the statement in lines 63-64 that automatic selection is made "according to the profile" does not change the subject of the text from selecting a gamut mapping mode to selecting a rendering intent. Selecting "according to the profile" must be read as referring to selecting according to the rendering intent in the header of the profile, which is what the '436 patent says just two lines earlier.

This conclusion is further supported by the very next paragraph, beginning on line 4 of column 10 of the '436 patent:

In other words, in a case of relative color matching, JCH	4
space 13 is selected, while in a case of absolute color	5
matching, QMH space 14 is selected.	6

The meaning could not be more clear. The terms "relative color matching" and "absolute color matching", as noted above, refer to rendering intents. The selecting being done is the selecting of gamut mapping mode, and it is being done on the basis of the rendering intent. Thus, is contrary to the rationale offered by the examiner, no automatic selecting of rendering intent taught or suggested here, as required by claim 1.

The '029 Patent

The examiner also mentioned the '029 patent (U.S. Patent No. 6,643,029), also to Kumada, but with a different co-inventor. The examiner stated that the '029 patent teaches a device profile with multiple rendering intents, from which she concluded that automatic selection must exist. The portion of the '029 patent on which the examiner relied is Figure 3. The applicant expressly asked where in the '029 patent was there a teaching of the limitations recited in claim 1. The examiner was unable to identify anything in the '029 patent that actually taught automatically selecting a rendering intent, and the examiner was unable to identify anything in the '029 patent that taught doing making the selection "based on the color characteristics of the device," as also required by claim 1.

At this point, the applicant would like to make one further point. Looking at Figure 3 of the '029 patent, we see that it does **not** show multiple rendering intents **in the header**. For this figure to support the argument made by the examiner in reference to the '436 patent, it would have to show that. In fact, the figure provides **no** support for the examiner's position.

The description of Figure 3 found in the '029 patent (col. 8 line 45 – col. 9 line 10) is reproduced below. Note that there is no indication that the header includes multiple rendering intents (which the '029 patent refers to as color matching methods), as the examiner's reading of the '436 patent would require.

FIG. 3 is a diagram illustrating an overview of a printer profile.

A profile has a header in which basic information relating to various profiles is described, and a table in which information used in color matching processing is described. For example, the header stores ID information, version information and device class information that indicates the basic type of the device. The table stores "B to A" information and "A to B" information. The "B to A" information describes color processing parameters relating to processing of the kind shown in FIGS. 9A and 9B for converting image data in PCS independent of the device to image data dependent upon the color space of a certain device. The "A to B" information describes color processing parameters relating to processing of the kind shown in FIG. 4 (described later) for converting image data dependent upon the color space of a certain device to image data in PCS independent of the device.

The "B to A" information and "A to B" information is stored in correspondence with the color matching method (perceptual, colorimetric and saturation) supported by the CMM (Color Management Module). The perceptual method is color matching suitable for images such as photographs and places emphasis upon color tones. The colorimetric method is color matching suitable for images such as logos and the purpose thereof is to reproduce matching colors colorimetrically. The saturation method is color matching that is suitable for images such as graphs and computer graphics and emphasizes color sharpness. In order to distinguish which color processing parameters shown in FIG. 3 correspond to which color matching method, the following numbers have been affixed to the parameters: "01" to perceptual, "02" to colorimetric and "03" to saturation.

The import of multiple rendering intents is this. The body of the profile has "A to B" and "B to A" tables, one for each color matching method (i.e., one for each rendering intent). The nature of the tables is explained in the preceding quotation. Each "A to B" table provides a "device to PCS" transform, and each "B to A" table provides a "PCS to device" transform. The acronym "PCS" refers to Profile Connection Space, an absolute color space used for converting colors. A device profile is generally bi-directional – that is, it has information to convert colors from device space to a PCS and from the PCS to device space – as is the case of the profile illustrated in Figure 3 of the '029 patent. Thus, a program using the profile will use one of the tables depending on the desired rendering intent and the direction of transformation needed. Here as in the '436 patent, the rendering intent is the basis of a selection, it is not what is being selected.

Breadth of Claim

Finally, the examiner observed that claim 1 seems very broad. The applicant pointed out that the test is not whether the claim seems broad, but whether the applicant has claimed more than he is entitled to. In light of the examiner's failure to find art that teaches what the applicant has claimed, the applicant respectfully submits that the claims are not too broad and that they should be allowed.
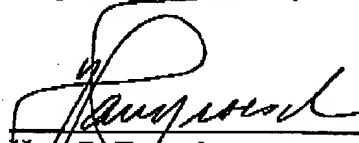
Conclusion

What the present application teaches – and what is not taught by either the '436 or the '029 patent – is selecting a rendering intent **automatically** based on the color characteristics of the device. For at least this reason, the claims should be allowed.

Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: 20 May 05

Hans R. Troesch
Reg. No. 36,950

Customer No. 21876
Telephone: (650) 839-5070
Facsimile: (650) 839-5071

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